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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,570	12/05/2003	Sung-Su Jung	8734.268.00 US	7322

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EXAMINER	
LIN, JAMES	
ART UNIT	PAPER NUMBER
1792	
MAIL DATE	DELIVERY MODE
11/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/727,570	JUNG ET AL.	
	Examiner	Art Unit	
	Jimmy Lin	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13 and 16* is/are pending in the application.

4a) Of the above claim(s) *1-11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12,13 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 12 is objected to because of the following informalities:

The recitation of "the number of the lines or the column of the image display parts" should be amended to "the number of lines or columns of the image display parts".

The recitation of "all the syringes are operated in same time" should be amended to "all of the syringes are operated at the same time". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 12-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (U.S. Publication No. 2001/0013920) in view of Hirokazu (JP 60-003609, listed in the IDS filed 2/26/2008) and Yamamoto et al. (JP 61-055625, listed in the IDS filed 3/16/2004).

Hashimoto teaches a method of making a liquid crystal display panel (abstract). A substrate 21a is placed on a table 31, and liquid crystal is injected onto the substrate through a nozzle of a syringe ([0050]; Fig. 14). The syringe can be attached to a robot arm and the robot arm moves while the substrate is fixed [0153].

Hashimoto does not explicitly teach that the substrate has a plurality of image display parts. However, Hirokazu teaches that it was extremely well known in the art of making LCDs to form a plurality of image displays on a single glass substrate (abstract; Fig. 1). The image displays are arranged such that multiple lines and columns are formed on the glass substrate. Because Hirokazu teaches that such a substrate configuration was operable in the art, it would have been obvious to one of ordinary skill in the art at the time of invention to have formed multiple image displays on the substrate of Hashimoto with a reasonable expectation of success.

The selection of something based on its known suitability for its intended use has been held to support a prima facie case of obviousness. Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945).

Hashimoto teaches that a single syringe can be used, but does not explicitly teach using a dispenser having a number of syringes corresponding to the number of lines or columns of the image display parts and that all the syringes are operated at the same time. However, Yamamoto teaches that the simultaneous deposition of liquid crystal into all of the display parts can shorten production time (abstract). In order to accomplish simultaneous deposition, a syringe would be required for each display part. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have supplied the dispenser of Hashimoto with multiple syringes to correspond with each of the display parts and to have simultaneously dispensed onto all of the display parts with a reasonable expectation of success. One would have been motivated to do so in order to have improved process efficiency and reduced manufacturing costs.

Claim 13: Hashimoto does not explicitly teach that sealant can be dispensed using a syringe. However, Hashimoto does teach that the sealant can be dispensed by any sort of method wherein the sealant is injected on the substrate through a nozzle [0046]. Hashimoto also teaches that a syringe can be used to inject material onto the substrate through the nozzle of the syringe [0050]. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of invention to have used the syringe of Hashimoto to inject the sealant onto the substrate with a reasonable expectation of success because Hashimoto teaches that the nozzle of the syringe is suitable for injecting a material onto an LCD substrate.

Claim 16: Hirokazu teaches that the glass substrate can have image displays of different sizes. For example, the first line of the first size comprises of six display images while the second line of the second size comprises of eight display images (Fig. 2).

Hashimoto and Hirokazu do not explicitly teach a first group of syringes corresponding to a first size of image display parts and a second ground of syringes corresponding to a second size of image display parts. However, one of ordinary skill in the art would have recognized that the use of a first set of syringes corresponding to the number of image displays for the first size and a second set of syringes corresponding to the number of image displays for the second size

would be able to provide for more precise dispensing because of the different sizes of the display images. Additionally, one of ordinary skill in the art would have recognized that the use of two different sets of syringes to be used for the two different sized display areas would have been operable. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have used a first group of syringes and a second group of syringes corresponding to the first and second image displays of Hirokazu, respectively, with a reasonable expectation of success. One would have been motivated to do so in order to have provided better control and precision of the dispensings.

Response to Arguments

4. Applicant's arguments, see pg. 5-6, filed 8/21/2008, with respect to the rejection(s) of claim(s) 12-16 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hashimoto, Hirokazu, and Yamamoto.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Lin whose telephone number is (571)272-8902. The examiner can normally be reached on Monday thru Friday 8AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jimmy Lin/
Examiner, Art Unit 1792

/Timothy H Meeks/
Supervisory Patent Examiner, Art Unit 1792